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## **RATS/MICE/BIRDS DATABASE: RESEARCHERS, BREEDERS, TRANSPORTERS, AND EXHIBITERS**

*A Database Prepared by the Federal Research Division,  
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## *Introduction*

The FRD APHIS database consists of over 6200 records for organizations that handle rats, mice, or birds, exclusive of pet stores and birds used as food and/or fiber. These records include approximately 460 dealers, 1200 breeders, 2100 exhibitors, 2000 researchers, and 350 transporters. Each data entry includes fields for APHIS registration number; point of contact; organization name; address; contact telephone numbers; email and web site address; category; type; sector; regulation; accreditation; number of animals by species; and notes. FRD research staff contacted or attempted to contact by telephone 31 dealers, 58 breeders, 49 exhibitors, 100 researchers, and 150 transporters.

FRD researchers pursued the following methodology. FRD staff first obtained in electronic form the APHIS September 1999 Active AW Listings, which were then uploaded into FRD's Cuadra/STAR database. This list was cross-referenced and augmented using lists from large accrediting, regulating, or membership organizations likely to handle rats, mice, or birds, such as the National Institutes of Health (NIH), the Association for Assessment and Accreditation of Laboratory Animal Care International (AALAC), Institutional Animal Care of Use Committees (IACUC), the Association of Independent Research Institutes (AIRI), the Gale Net Research Centers Directory, the Animal Welfare Information Center (AWIC), the American Zoo and Aquarium Association (AZA), and others. The database was edited to remove organizations that clearly were not relevant to rats, mice, and birds such as kennels, pet stores, aquariums, and species-specific entries of all types (i.e., dogs, cats, rabbits, camels, horses, alligators, etc.). FRD researchers then contacted a sampling of each kind of organization directly, requesting that organization representatives provide general estimates (in terms of 10s, 100s, 1000s, etc.) of the average number of rats, mice, and birds they had on hand on an annual basis.

Below is a brief analysis of FRD's findings according to organization category.

### *Breeders*

The database includes over 1,200 breeders. By far the largest percentage (over 90 percent) of these entries are for breeders listed as individuals on the APHIS

breeders (A) list. Many of these entries are, no doubt, dog breeders but it is impossible to determine this fact without contacting each listing individually. These records have been left in the database in order to avoid losing any potentially useful information. Regional APHIS offices could might be able to identify individuals who are or are not relevant to the rat/mice/bird study.

Of the 1,200 breeders in the database, FRD staff performed in-depth research of 58; 19 of these were subjected to telephone queries. FRD researchers are 90 percent confident that over 90 percent of rat and mice breeders for research are included in our database. Most rats and mice used in research are produced by six major companies (Jackson Labs, Charles River Labs, Harlan/Covance, Zivic-Miller, Taconic, and Simonsen). PETA claims that Charles River alone produces 40-50 percent of all mice and rats used in research in the United States.<sup>1</sup> All of these companies, in addition to about 15 other organizations identified through various lab animal resources (such a *BioSupplyNet* and *Lab Animal* publications), are in the FRD rat/mice/bird database. FRD staff are also confident that the database contains most producers of transgenic mice. Many transgenic mice are produced in universities. Although FRD staff does not know precisely how many universities produce transgenic mice, the database includes over 700 U.S. colleges and universities. Those universities that we have not been able to identify definitively as organizations producing transgenic rats or mice are nonetheless very likely included in the database as research organizations.

One commercial breeder claims that five percent of the total number of rats and mice bred in the United States—some 200-400 million in all—are bred for research.<sup>2</sup> Researchers are reasonably certain that they have identified those producers. However, the individuals and/or small companies that produce rats and mice for other purposes— an estimated 190 to 380 million animals—have not been clearly identified through the research. The database identifies over 15 organizations that are known to breed rats and mice for other than research purposes. Since there

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<sup>1</sup> “Animal Experimentation: Sadistic Scandal.” PETA website, February 18, 2000, <<http://222.peta.com/cmp/crexpfs.1.html>>

<sup>2</sup> Telephone conversation with Joe Falon, Taconic Farms Inc., December 1999.

are no large organizations that could provide extensive source lists for small breeders, research in this area is quite labor intensive, involving searches of area phone directories, small regional breeding associations, web searches, etc. Time and financial resources did not permit a more exhaustive compilation of small breeders.

Research into bird breeders is equally time consuming. The potential number of bird breeders is staggering. The Pet Industry Joint Advisory Council (PIJAC) estimates that five percent of the over 100 million U.S. households breed birds (that is 5 percent times 100 million = 5,000,000 household bird breeders alone).<sup>3</sup> Bird-breeding associations, such as the Ornithological Council, the American Federation of Aviculture, and the Pet Industry Joint Advisory Council (PIJAC), either could not or would not provide any resources or lists of bird breeders known to them. In addition, they warned us that bird breeders would not be cooperative in providing information to us should we contact them. Approximately 20 bird breeders (those breeding for show, pets, and for research) are included in our database. They have been identified through the lab animal publications listed above, extracted from the APHIS A list, and researched on the Internet.

### *Dealers*

The starting point for the dealer list was the APHIS dealer (B) list. From this list, all identifiable pet stores and kennels were deleted along with any organization which, by its title, seemed to concentrate on species other than rats/mice/birds. Our dealer database consists of 460 records, 31 of which were contacted by the research staff. Those dealers that responded and, in fact, handle rats/mice/birds, primarily dealt with mice—some 5000 animals. Approximately 16 organizations stated that they did not deal in rats/mice/birds; two organizations did not respond to our inquiries; and five groups were not located. Because there is considerable overlap between researchers and breeders, FRD staff have not developed a sense of confidence as to the completeness of the database of animal dealers.

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<sup>3</sup> Telephone conversation with Marshall Myers of the Pet Industry Joint Advisory Council, October 29, 1999.

### *Exhibitors*

Our database consists of over 1,200 exhibitors, mostly from the APHIS exhibitors (C) list and the American Zoo and Aquarium Association membership list. Organizations with titles that rather obviously suggest not having rats/mice/birds (aquariums, alligator farms, etc.) have not been transferred from either of these listings to our database. The AZA stated, based on information they obtained from APHIS, that there are approximately 2,200 organizations in the United States exhibiting animals.<sup>4</sup> In addition, other experts estimate that there are about 1,200 roadside zoos and menageries in the United States.<sup>5</sup> FRD researchers have not located any other sources that have attempted to estimate how many animal exhibitors operate in the United States. FRD staff estimate that approximately 30 to 50 percent of exhibitors are included in the database, although this estimate is made with a low level of confidence.

FRD researchers contacted about 49 exhibitors. Of this number, 31 provided good information; three claimed to have no rats/mice/birds; one was hostile to our inquiries; 12 did not return our calls; and two could not be located. In general, exhibitors have been very responsive, and provided precise numbers for the animals they have, which seem to be mostly birds, rather than rodents (6,228 birds, 20 rats, and 194 mice for those contacted).

### *Researchers*

Over 2,000 research organizations are listed in the database, of which approximately 500 were researched and of these, 100 were contacted directly by FRD staff. These organizations include hospitals, government organizations, private companies (pharmaceutical companies, etc.), universities/colleges, a few secondary schools, and research institutes. Of these 2,000, approximately 960 are regulated by USDA; 349 by NIH; and 560 accredited by AALAC. Approximately 50 percent of the organizations contacted revealed a specific or approximated number of animals in

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<sup>4</sup> Conversation with AZA, Jane Ballentine, August 3, 2000.

<sup>5</sup> Amanda Blake Memorial Wildlife Refuge, February 22, 2000, <<http://users2.50megs.com/sosha/abmwr.html>>.

their laboratories. The total number of animals for those organizations is: 250,000-1,000,000 rats; 400,000-2,000,000 mice; and 130,000-900,000 birds.

The starting resource for the researchers database was the APHIS researchers (R and RI) lists, the 1999 AALAC List of Accredited Programs, and a FY 1998 listing of organizations receiving NIH funding<sup>6</sup>. Additional facilities were added from research on the Internet, various other research institute databases (IACUC list of commercial organizations and comparative medicine departments/centers/institutes<sup>7</sup>, AIRI members<sup>8</sup>, the Gale Net Research Centers Directory<sup>9</sup>, and the AWIC list of companies and institutes providing new technologies)<sup>10</sup>; and from affiliations from lists of published research from Medline<sup>11</sup>, and the Animal Protection Institute Computer Retrieval of Information on Scientific Projects (CRISP) database<sup>12</sup>.

According to the National Association of Biomedical Research and the Institute of Laboratory Animal Research at the National Resource Council (ILAR), some 1,200

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<sup>6</sup> “NIH Support to all Institutions, Fiscal Year 1998.”  
<<http://silk.nih.gov/public/cbz2zoz.@www.all.inst.fy98.dsnc>>

<sup>7</sup> “IACUC Training and Learning Organizations.”  
<<http://www.iacuc.org/organizations.html>>

<sup>8</sup> “Association of Independent Research Institutes Member Institutes.”  
<<http://www.airi.org/rep1.htm>>

<sup>9</sup> Donna Wood, ed. *1999 New Research Centers. The Supplement to the 24<sup>th</sup> Edition of Research Centers Directory and the 11<sup>th</sup> Edition of International Research Centers Directory*. Gale: Detroit, 1999.

<sup>10</sup> “A Selected List of Company and Institute Resources Providing New Technologies,”  
<<http://www.nal.gov/awic/pubs/antibody/company.htm>>

<sup>11</sup> National Library of Medicine, “Medline.”  
<<http://www.healthgate.com/medline/search-medline.shtml>>

<sup>12</sup> U.S. Public Health Service, “CRISP Database.”  
<[http://commons.cit.nih.gov/crisp/owa/CRISP.Generate Ticket](http://commons.cit.nih.gov/crisp/owa/CRISP.Generate%20Ticket)>

research facilities are registered in the United States<sup>13</sup>. Additionally, ILAR claims, NIH funding covers 95 percent of all animal research facilities and estimates that 85 percent of vertebrate animals used in research, education, and testing are mice and rats. Based on these data, FRD staff estimate a high degree of confidence in these entries. The database represents an excellent accumulation of the vast majority of research facilities using mice and rats.

Use of birds in research is much more difficult to estimate. However, this database covers such a large number of research facilities, that it is safe to assume that the vast majority of those using birds are included as well.

The database covers most completely the academic and biomedical research facilities in the private and public sectors. Biotechnology companies, pharmaceutical companies, and small colleges and secondary schools are covered less thoroughly.

### *Transporters*

The FRD APHIS database contains 329 transporters/handlers. Researchers attempted to contact over half of these: 90 responded to the inquiry; 40 did not return telephone calls; and another 40 could not be contacted. Of the 90 respondents, 30 provided specific numbers, which total some 100,000 to one million birds; 20,000 to 200,000 rats; and 30,000 to 300,000 mice per year.<sup>14</sup> Another 10 organizations, largely big shippers, said they transport rats/mice/birds but do not maintain records concerning how many and/or what kind of animal is transported. Some 20 organizations stated that they do not transport any of these types of animals, although they transport other species; 25 organizations had inconclusive answers, such as “we can transport them, but we don’t” or “we haven’t transported them in a few years,” etc. Fewer than ten organizations refused to answer our questions.

By comparing our database on transporters with a number of sources on the Internet, including a list provided by the International Air Cargo Association (which

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<sup>13</sup> Telephone conversation with Dr. Ralph Dell of the Institute of Laboratory Animal Research (ILAR), February 16, 2000 and with Barbara Rich of the National Association for Biomedical Research (NABR), December 1999.

<sup>14</sup> Most respondents provided numbers of animals in terms of 10s, 100s, 1,000s, etc. so a range is given here.

includes the following transportation unions: AFA, ALPA, APA, APFA, FEIA, IAM, IBT, IPA, TWU<sup>15</sup>) and a recently published directory of cargo airlines<sup>16</sup>, FRD staff estimates that the database includes approximately 65-70 percent of air cargo transporters doing business in the United States. Entries on pet transporters/animal handlers resulting from various Internet searches are also included. The Association of American Railroads (AAR) lists 14 major freight railroad companies<sup>17</sup> and the Association of Short Line and Regional Railroad Association (ASLRRA) states that there are about 550 small railroads operating in the United States<sup>18</sup>. The 14 major freight railroad companies are listed in the database, although none of them were contacted. Although our coverage of railroad companies is limited, a representative of the ASLRRA confirmed our suspicions that very few rats/mice/birds are shipped via rail.<sup>19</sup> Over 450,000 interstate motor carriers are registered with the Office of Motor Carriers,<sup>20</sup> of which the database contains a but fraction.

### *Conclusion*

Assembling and editing a reliable database for rats, mice, and birds used in research, breeding, exhibition, and transport in the United States is a monumental task. The final product endeavors to be a refined, well-organized, and useful compilation of a large portion of data on these species. Of the 6200 records in the database, almost 400 individuals and/or organizations were contacted by telephone and, based on

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<sup>15</sup> International Air Cargo Association <<http://www.iata.org/>>

<sup>16</sup> Oliver Scharschmidt, *Cargo Airlines*. Motorbooks International. February 1, 1997.

<sup>17</sup> Association of American Railroads, "AAR's Member Railroads." <<http://www.aar.org/aarhome.nsf>>

<sup>18</sup> Email for Alice Saylor of the American Short Line and Regional Railroad Association (ASLRRA), August 1, 2000.

<sup>19</sup> Email from Alice Saylor ASLRRA, August 1, 2000 and Clyde Crimmel, AAR, August 2, 2000..

<sup>20</sup> ATA Economics and Statistical Analysis Department, "Standard Trucking and Transportation Statistics," *STATS*, February/March 1999, p. 3.



published research, another 300 were identified as likely to have rats/mice/birds. Some 5500 organizations could be contacted or researched concerning their involvement with rats/mice/birds. Additional research should be done to fill out certain areas of the database, such as bird breeders, research centers in corporations, independent laboratories, secondary schools and small colleges doing research, individual labs within the government departments already identified, and exhibitors outside the major zoos, in particular. This database identifies a maximum of 1.2 million rats, 4.2 million mice, and 1.9 million birds. Despite the considerable work put into the database to date, a great deal of more work would be required to account for an estimated 500+ million rats/mice/birds that could potentially be added to the Animal Welfare Act should the proposed amendment be adopted.